C. Austin,

Cutting Reed Plates,

No. 59,541. Patented Nov. 13, 1866.

Fig. 1.

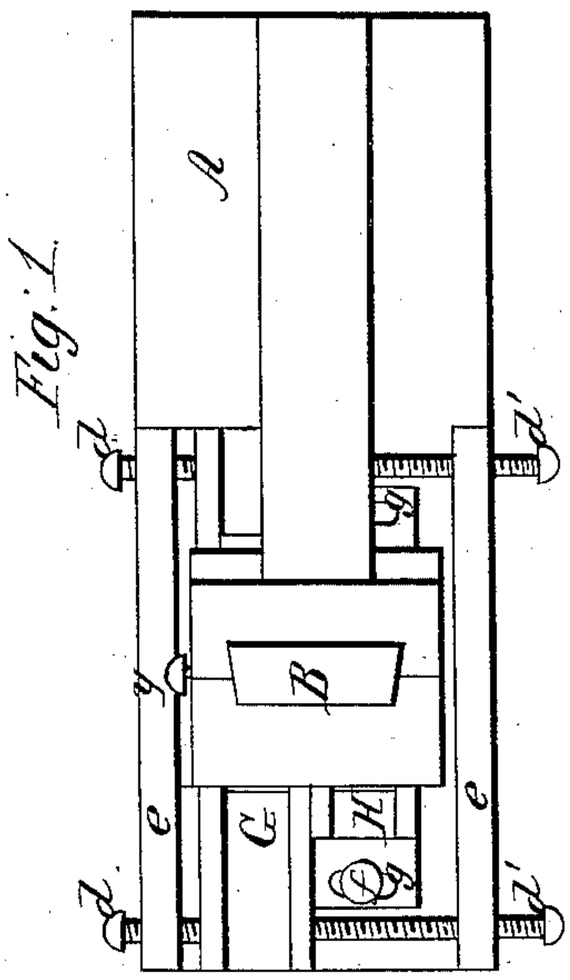

Fig. 2.

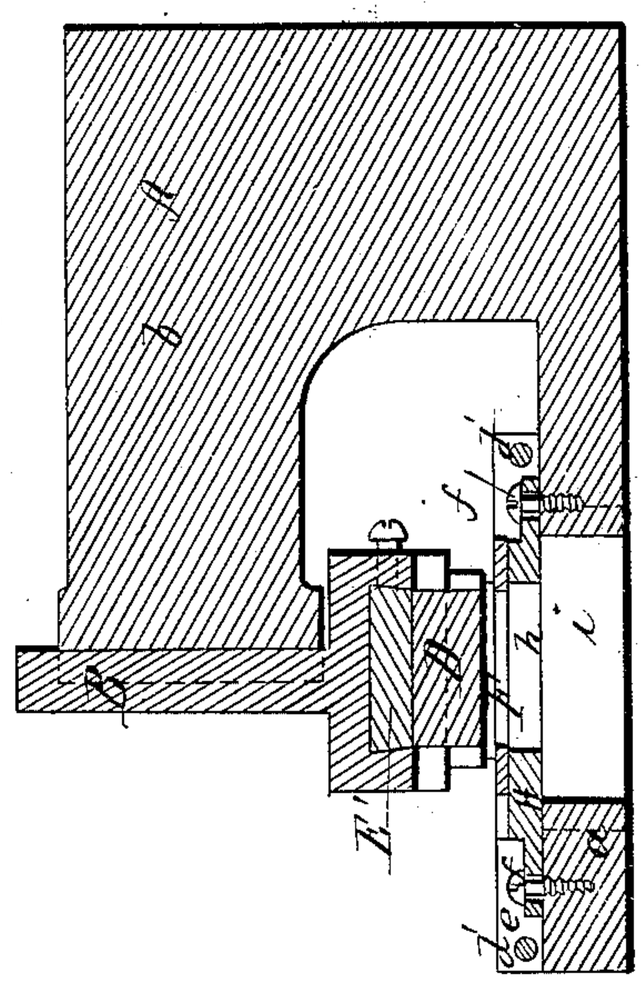

Fig. 3.

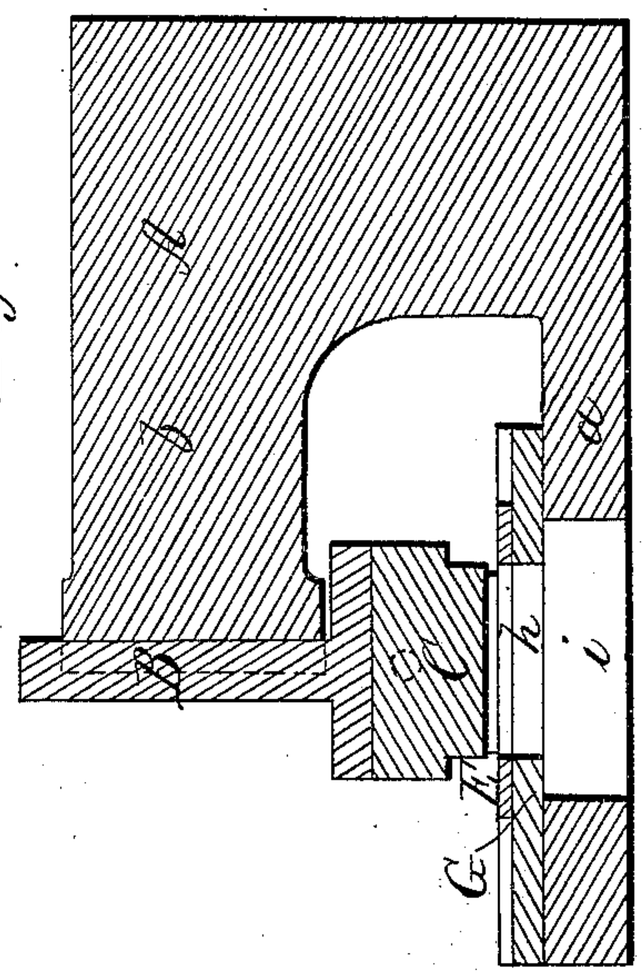

Fig. 4.

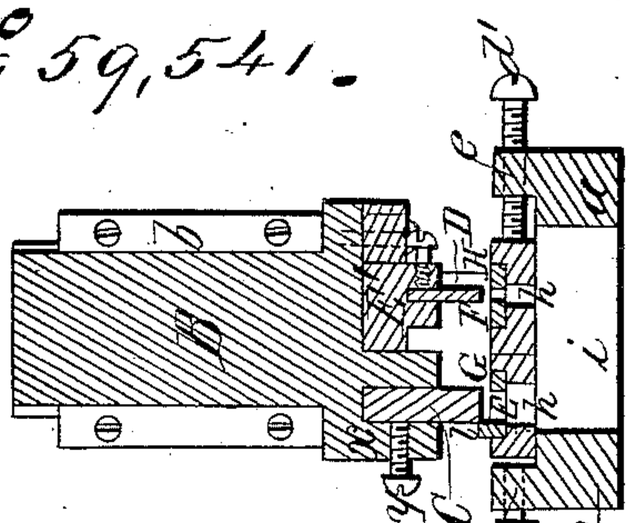

Fig. 5.

Witnesses;

Samuel N. Piper

George Andrews

Inventor;

Charles Austin

by his attorney

R. H. Eddy

UNITED STATES PATENT OFFICE.

CHARLES AUSTIN, OF CONCORD, NEW HAMPSHIRE.

IMPROVED MACHINE FOR STAMPING REED-PLATES.

Specification forming part of Letters Patent No. **59,541**, dated November 13, 1866.

To all whom it may concern:

Be it known that I, CHARLES AUSTIN, of Concord, in the county of Merrimack and State of New Hampshire, have invented a new and useful Machine for Stamping Reed-Plates from a Sheet of Metal; and I do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view, Figs. 2 and 3 longitudinal sections, and Fig. 4 a transverse section, of it. Fig. 5 is a top view of a reed-plate as made by such machine.

The design of such machine is to convert a sheet of metal into a series of reed-plates formed with sockets for holding the reeds of a melodeon or seraphine.

In the drawings, A denotes the frame of the machine, it consisting of a bed-plate, *a*, and a "goose-neck" or standard, *b*, the latter being erected on and projected from the bed-plate, and formed as represented. The said standard serves to support and guide a plunger, B, which is to be arranged over the bed-plate, and applied to the standard so as to be capable of being moved vertically either toward or away from the bed.

The plunger carries two male dies, C D, one of which—viz., that marked C—is arranged in a groove, *x*, made in the plunger, and fastened therein by a set-screw, *y*. The other die is fixed in an adjustable carrier, E′, which is to be secured to the plunger in such manner as to be capable of being moved in the plunger so as to adjust the male die D either toward or away from the die C. These dies operate with female die-plates E F, placed underneath them and supported in other carriers or carriages, G H, resting on the bed.

Adjusting-screws *d d d′ d′* screw through ledges *e e*, raised on the bed. These screws act against opposite sides of the carrier G, and serve to adjust it properly with respect to the larger male die. The other carrier, H, is confined to the bed by means of set-screws *f f*, which go through slots *g g* made transversely in the carrier. Each of such carriers is grooved lengthwise for the reception of a die-plate, in order that the machine may be adapted to the use of dies of different sizes.

Furthermore, each carrier G H has a vertical passage, *h*, made down through it, and to open into a similar but larger passage, *i*, made down through the bed, such passages being for discharging the metal forced down through the female dies.

The plunger and its movable die-carrier E are also to be so made as to be capable of holding dies for making reed-plates of different sizes. A stop-ledge, *l*, projects upward from the die-plate E and close to the rearmost edge of its opening or female die.

In operating with the above-described machine, a sheet of metal is to be laid underneath both of the male dies and on the female die-plates, and so that its edge may be against the inner edge of the ledge or gage *l*, after which the plunger should be forced downward, so as to simultaneously separate from the plate two pieces of metal corresponding in form with the female dies. One of these pieces will be of the shape of the plate shown in Fig. 5, except that it will be without any hole or passage through it. The other will be of the shape of the opening of such reed-plate. Next, the sheet of metal is to be advanced so as to bring its rear edge up to the gage *l*, and the plunger should again be driven downward. Two pieces of metal will thus again be separated from the sheet. One of these pieces will be of the exact shape of the reed-plate, while the other will be of the shape of the opening of such reed-plate. Continuing to proceed in this manner, the whole sheet may be reduced to reed-plates and pieces of the shape of the openings thereof.

I claim—

1. The combination and arrangement of the gage *l*, the two sets of male and female dies, and the adjustable die-carrier, applied to a bed and plunger so as to operate substantially as and for the purpose set forth.

2. The combination and arrangement of the three adjustable die-carriers E G H with the bed and plunger and its fixed or larger die, such die-carriers being provided with mechanism for adjusting them, substantially as set forth.

CHARLES AUSTIN.

Witnesses:

R. H. EDDY,

GEORGE ANDREWS.